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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,351	08/03/2006	Friedhelm Schmitz	2003P17919WOUS	8666
22116 7590 07/08/2009 SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830				
EXAMINER				
DUONG, THO V				
ART UNIT		PAPER NUMBER		
3744				
MAIL DATE		DELIVERY MODE		
07/08/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,351

Applicant(s)

SCHMITZ, FRIEDHELM

Examiner

Tho v. Duong

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 13, 16-18 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-13, 18, 20, 22 and 24 is/are allowed.
- 6) ☒ Claim(s) 16, 17, 21 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's amendment filed 4/3/09 is acknowledged. Claims 12-13,16-18 and 20-24 are pending.

Response to Arguments

Applicant's arguments filed 4/3/09 have been fully considered but they are not persuasive. Applicant's argument that Montgomerie fails to disclose the limitation of "a second toxically acting layer limited to covering the non-uppermost portion of the inside surface of the tube" because similar to claim 12, Montgomerie fails to disclose coating at only a portion of a surface, has been very carefully considered but is not found to be persuasive. Clearly, the languages of two claims 12 and 16 are different. The limitation in claim 16 does not exclude the uppermost portion to be covered with a second layer.

Applicant further argues that reference to Yazaki's drawing is for illustrative purpose and for process of manufacturing only, it fails to disclose that the tube weld seam is located at an upper most position of the tube when the tube is in operation, has been very carefully considered but is not found to be persuasive. Applicant is reminded that drawing is also a part of the disclosure and can be used as part of the prior art to disclose or teach of a claimed subject matter. Yazaki discloses (figures 2a-2c) a tube having a weld seam (7) located at an upper most position of the tube so the tube can be made by bending a sheet of material. Furthermore, the tube is capable of being oriented with the weld located at an uppermost position as the tube is placed in operation because the ability of the tube conducts a fluid flowing inside the tube does not depend on the position of the weld seam on the tube. Therefore, the tube of Yazaki can be

used in operation with any orientation or at the orientation shown in figure 2b with the weld seam located at an uppermost position of the tube.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Montgomerie et al. (GB 1,042,386). Montgomerie discloses (page 1) a surface condenser for steam comprising a plurality of heat exchanger tubes having an outside surface and an inside surface that rout a cooling medium long the inside surface of the tube, wherein a first layer and a second toxically acting layer of PTFE, which are capable of reducing an adhesion of the fluid, are arranged on the outside and inside surface of the tube respectively. Applicant is reminded that the examiner must interpret the limitation as broadly as it reasonably allows. Therefore, it is reasonably to consider the PTFE layer to read as “toxically acting layer” since PTFE is capable of reducing adhesion of liquid on its surface, which in turn reduces the risk of accumulating or growing of organic substances on the surface. At any orientation of the tube in operation, the inside surface of the tube includes an uppermost portion (top portion) and a non-uppermost portion (bottom portion), which are both covered by the second layer. Therefore, in a broad interpretation, the second layer limited to covering the non-uppermost portion of the inside surface and the uppermost

portion. Regarding claims 13, Montgomerie discloses (page 1, lines 44-50) that the layer includes a plurality of sub-layers (coatings).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomerie in view of Austin et al (US 4,564,537) or Brown et al (CH 286241). Montgomerie substantially discloses all of applicant's claimed invention as discussed above except for the limitation that the inner layer is a silicate network. Both Brown and Austin (column 5, lines 9-69) discloses a layer of silicate network material is coated on a surface of the tube for a purpose of providing anti-fouling coating for the tube surface. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use either Austin's or Brown teaching in Montgomerie's heat exchanger for a purpose of providing an anti-fouling coating for the tube surface.

Claims 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomerie et al. in view of Yazaki (US 3,941,087). Montgomerie substantially discloses all of applicant's claimed invention as discussed above except for the limitation that the tube comprises a longitudinal welding seam on upper most of the tube and the portion of the inside surface of the tube starts at the tube's three o'clock position and ends at the tube's nine o'clock

position. Yazaki discloses (figure 2) a tube having a longitudinal seam (7) located at the upper most position of the tube cross section for an obvious reason that the tube can be easily formed by bending a flat sheet of material. . It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Yazaki's teaching in the heat exchanger of Montgomerie for a purpose of forming the tube by bending a flat sheet of material. Regarding the limitation that the portion starts at the tube's three o'clock and end at the tube's nine o'clock position. Applicant is reminded that the examiner must interpret the limitation as broadly as it reasonably allows. In this case, the portion is the bottom half of the tube, which is covered with the second layer, and the bottom half is defined from the tube's three o'clock position to the tube's nine o'clock position.

Allowable Subject Matter

Claims 12-13,18,20, 22 and 24 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tho v Duong/
Primary Examiner, Art Unit 3744